

eral fillet. From this place onward the fibers could be traced to the posterior quadrigemina where they terminated close to the superior nucleus of the lateral lemniscus. In the second series of cases, similar degenerations were found. In a third series a lesion was made by cutting downward and outward through the floor of the fourth ventricle, dividing both the dorsad and ventrad fibers of the corpus trapezoid. Similar conclusions as those already outlined were reached by this method of investigation. The fourth series of experiments was made to ascertain the cells of origin of the two strands of the corpus trapezoid tract. If a lesion was restricted entirely to the accessory nucleus of the eighth nerve degenerations corresponding to those just described resulted. On the question of the relation of the medullary striæ in the secondary auditory path the author found that attempts to cut these on the floor of the fourth ventricle were unsuccessful but they were found destroyed in an experimented animal in which the seventh nerve had been torn out and had ruptured the acoustic striæ. Degenerated fibers can be followed from the point of injury to their raphe where they crossed dorsad to the upper fibers and the trapezoid body until they became posterior to the olivary nuclei. They then turned upwards, lying behind the dorsal trapezoid tract and internal and ventrad to the motor fifth nucleus. They entered the lateral lemniscus at the upper border of the upper cerebral peduncle, being mingled with the fibers of the dorsal strand of the corpus trapezoid. They finally ended in the nucleus of the posterior quadrigemina itself, thus tracing the fibers of the secondary auditory path higher than those previously described. The author was unable to verify the opinion of Held that neither the dorsal nor ventral auditory paths could be traced to the inferior corpora quadrigemina or cortex. Thus the author holds that the central auditory path is in reality a bulbo mesencephalic rather than a bulbo-cortical one. The illustrations are numerous, there being over 62 illustrations accompanying this extremely interesting and suggestive article.

10. *Inhibitory Fibers of the Heart.*—Van Gehuchten controverts the old idea that the inhibitory fibers of the heart arise in the spinal accessory and pass to join the vagus by its internal branch.

He concludes that (1) the inhibitory fibers of the heart do not come from the spinal accessory nerve but are derived from the vagus itself. (2) His investigations on the innervation of the larynx (see abstract of last number) go to prove that all of the bulbar fibers of the spinal accessory are distributed to the muscles of the larynx; the eleventh nerve has an exclusive medullary origin and (4) the vagus gives off a superior and inferior system of fibers exclusively motor, including motor fibers destined to all the muscles of the larynx exclusive of the crico-thyroid, which is supplied by the inferior laryngeal nerve and a secondary series of inhibitory fibers to the heart.

JELLIFFE.

REVUE DE PSYCHIATRIE ET DE PSYCHOLOGIE EXPERIMENTALE (January, 1903.)

1. Tests in Psychopathology. ED. TOULOUSE and N. PIÉRON.
2. Experimental Researches on the Psychology of Memories. N. VASCHIDE and CL. VURPAS.
3. Study of Morbid Obsessions.

1. *Tests in Psychopathology.*—The aim of this article is to indicate the lines along which the development of psychopathological tests must proceed if they are to be more exact and comparable. In their introduction the authors critically review the work of Guicciardi and Ferrari and of Tamburini, Badaloni and Brugia. They then proceed to a brief statement

of their own methods illustrated by their application in the domain of memory. They believe in the general principle that the methods for the study of the abnormal mind should be the same as those used for the study of the normal, for the abnormal mind differs only from the normal in showing exaggeration of certain characters or defect of others—differences only of more or less. Applied to an experimental study of the memory of sensations their method would involve the use of a definite multiple of the previously determined minimum perceptible stimulus in the sensory field under consideration. In this way only can results comparable as between different subjects be obtained as no stimulus is felt the same by all. There is no absolute in psychology, only the relative. In the study of the memory of perceptions the optimum or quantity best perceived is used as a basis, while in the study of the memory of ideas sentences constructed of identical length, in the same style, containing the same number of ideas disposed in the same way are used, thus detaching as far as possible the idea from its setting. The article closes with a few words on the calculation of errors.

2. *Psychology of Memories* (continued).

3. *Morbid Obsessions*.—The authors have studied for this article in all ninety-seven cases. They have studied only those cases in which the obsession was the essential psychopathic symptom, not differentiating for their purposes the phobias from the morbid obsessions. The results of their studies are as follows:

Of the 97 cases examined 76 were men and 21 women. The occupations were distributed as follows—8 clergymen, 11 merchants, 11 office employees (all men), 14 domestics (all women), 17 artisans, and 29 persons in different intellectual professions. The greater part of the obsessed were thus from intellectual pursuits; 92 per cent of all cases showed hereditary tendencies. Of 94 cases 7 only showed no afflicted relatives, 38 showed 1 or 2, 30 cases had 3 to 5, and 19 cases 6 or more. Thus in the great majority of cases at least 3 members of the family had been afflicted. Of 88 cases 7 showed no heredity, in 32 heredity existed on one side only, and in 49 on both sides. One-third of all cases showed a homogeneous heredity. A study of the mental life of these cases shows them to have been possessed of a peculiar character from early life, marked by indecision, irritability, desire for solitude, painful and disagreeable emotions, egotism and often hypochondriacal ideas. In 77 of the cases the phenomena manifested themselves at twenty years of age, in 11 cases after twenty years. The development was usually progressive and by insensible degrees. This progress, however, may be interrupted by exacerbations, especially as a result of influenza, menstrual difficulties, puberty, etc. Occasionally as an accompaniment of the obsession is found epileptoid, hysteriform, vertiginous or syncopal attacks, and sometimes complicating this condition sexual perversion, sexual excitability (4 cases), masturbation (42 cases), or other sexual anomalies (28 cases). Occasionally these cases dement, and then arises the question of differential diagnosis between pure morbid obsessions and dementia præcox with obsessions.

(February, 1903.)

1. *The Mental State in Cerebral Tumors*. A. VIGOUROUX.
2. *Experimental Researches on the Psychology of Memories*. N. VASCHIDE and CL. VURPAS.

1. *Mental State in Cerebral Tumors*.—The author deals with these three points in this article; first: have these psychic troubles characters which point to the presence of a tumor? second: are they of such a nature as to indicate its location? third: can they be classified? After a careful review of the opinions of writers on this subject the authors answer these queries negatively. Psychic symptoms may or may not accompany a tumor in a given location, and their nature is independent of the nature of the tumor as such and may be the result of accidental conditions, such as inter-

ference of circulation, meningitis, the impregnation of the brain by toxic products of disassimilation, surrounding inflammation and many other causes. Finally the author concludes, with Ball, that when a true psychosis is found associated with a cerebral tumor, there is every reason to believe that the association is a simple coincidence.

2. *Psychology of Memories* (concluded).—An experimental study confined solely to the domain of psychology and having little interest from the standpoint of psychiatry.

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MISCELLANY

HYPNOTICS AND THEIR DANGERS. Dr. Nestor Tirard (*Lancet*, April 11, 1903).

In a treatise on some dangers of hypnotics the author draws the following conclusions: He says that he is convinced that in the employment and in the selection of a hypnotic sleeplessness is perhaps the least important factor to be considered, although it may be the sole symptom of which complaint is made. The cause must be ascertained, together with any indications of idiosyncrasy. The co-existence of other diseases must influence the selection of the hypnotic, and even when, for the individual case, a suitable hypnotic has been found, risks of repeating moderate doses must be borne in mind. Generally the dose has to be gradually increased, especially when the cause has not been ascertained or satisfactorily dealt with, but with some drugs, e.g., sulphonal, trional and tetronal, the danger appears to lie in the total quantity taken, even though each dose may have been small. But perhaps the greatest danger of all is incurred when the patient is given a prescription for a hypnotic, and this danger has certain analogies with the medicinal employment of alcohol. Many of us believe that at the height of fever or in conditions of collapse, alcohol is often necessary, but it is never recommended to our patients for indefinite use, still less for increasing doses. Armed with a prescription for a hypnotic patients commonly go on taking the drug long after the relief of the special circumstance for which it was prescribed, and the prescription may be used to facilitate the acquisition of large quantities of a dangerous drug obtained, perhaps, at several establishments in small amounts. Notwithstanding the relief which many have derived from the use of hypnotics, he is in favor of any step which tends to prevent their administration, except by the medical man or under his immediate directions. He has seen so much of the dangers of hypnotics that he would prohibit their sale to the public or would allow them only to be dispensed to a freshly-dated prescription, which should be retained by the druggist or returned to the prescriber.

JELLIFFE.

NERVE SUTURE AND NERVE DEGENERATION. P. B. Henriksen (*Lancet*, April 11, 1903).

In a study on the subject of nerve suture and nerve degeneration, the author says, considering the question of whether a degenerated nerve can be supposed to be to some extent conducting: This question may be solved in two ways—either by proving conducting elements in the degenerated nerve or by proving effects of the nerve function during the degeneration period. According to what has formerly been mentioned, the new fibers must be supposed to be formed of elements in the peripheral part of the nerve. What are these elements, and at what time can they be shown as continuing courses fit for conducting a nerve impulse? When a nerve is divided the weight of a corresponding muscle will diminish rapidly. By weighing the muscle twelve days after dividing one peroneal nerve of a rabbit it was found that the muscle corresponding to the divided nerve weighed 4.77 grams, while the muscle on the other side weighed 6.98